

WHAT IS CLAIMED IS:

1. A key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad of a substantially sheet shape made of a silicone rubber or a soft thermoplastic elastomer having transparency, and a character, a symbol or the like on each key top is illuminated by a light from a light source, characterized in that at least one of the key tops has a structure in which a top face and/or a side face except a bottom face of a main body made of a transparent hard resin is covered with a metallic film; a predetermined pattern of the character, the symbol or the like is formed on the key top by removing the metallic film at an irradiated portion by irradiation of a laser light; and the key top is illuminated by a light outgoing from the predetermined pattern of the character, the symbol or the like.
2. The key top according to claim 1, characterized in that a colored layer is provided on the top face or the bottom face of the key top to correspond to the formation position of the predetermined pattern of the character, the symbol or the like formed by removing part of the metallic film on a surface by irradiating with the laser light.
3. The illuminated key unit according to claim 1, characterized in that the metallic film on the key top surface is formed by any method of plating, vapor deposition, sputtering, and CVD.

4. A key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad of a substantially sheet shape made of a silicone rubber or a soft thermoplastic elastomer, characterized in that at least one of the key tops has a structure in which a top face and/or a side face except a bottom face of a main body made of a transparent hard resin is covered with a metallic film formed by plating, and a pattern of a character, a symbol or the like is formed by irradiating the key top with a laser light, and then removing a surface portion only of the metallic film at an irradiated portion to constitute a plane aggregation of a large number of very small recessed points.

5. The key unit according to claim 1 or 4, characterized in that as the laser light, there is used one of a laser light having a wavelength of 532 nm obtained by taking out a second harmonics of Nd:YAG laser, a laser light having a wavelength of 355 nm obtained by taking out a third harmonics of the laser, a laser light of a YAG laser having a wavelength of 1064 nm and a convergence diameter of 30 μm or less to the irradiated portion, and an excimer laser light having a wavelength of 180 nm and a convergence diameter at molecular level.

6. A marking method to a key top which comprises irradiating, with a laser light, a metallic film on a key top surface of a key unit used in a mobile device such as a portable telephone in which a large number of key tops are

disposed on a key pad of a substantially sheet shape made of a silicone rubber or a soft thermoplastic elastomer, to remove the metallic film at an irradiated portion and to thereby form a predetermined pattern of a character, a symbol or the like, characterized in that the laser light has a wavelength of 1100 nm or less.

7. A marking method to a key top which comprises irradiating, with a laser light, a metallic film formed by plating on a key top surface in a key unit used in a mobile device such as a portable telephone in which a large number of key tops are disposed on a key pad of a substantially sheet shape made of a silicone rubber or a soft thermoplastic elastomer, to remove a surface portion only of the metallic film at an irradiated portion and to constitute a plane aggregation of a large number of very small recessed points, thereby forming a pattern of a character, a symbol or the like, characterized in that the laser light has a wavelength of 1100 nm or less.

8. The key unit according to claim 6 or 7, characterized in that as the laser light, there is used one of a laser light having a wavelength of 532 nm obtained by taking out a second harmonics of Nd:YAG laser, a laser light having a wavelength of 355 nm obtained by taking out a third harmonics of the laser, a YAG laser light having a wavelength of 1064 nm and a convergence diameter of 10 to 30 μ m to the irradiated portion, and an excimer laser light having a wavelength of 180 nm and a convergence diameter at

molecular level.

9. A manufacturing method of a key unit,
characterized in that unmarked key tops including a key top
having a metallic film are combined with a key unit; the
5 manufacture is temporarily stopped in a state wherein all
other steps except marking to the key tops have been
completed; the stopping is kept until contents of a
character, a symbol or the like necessary for the product
are decided; and then marking of the character, the symbols
10 or the like is performed by the marking method according to
any of claims 6 or 7 to complete the key unit.